

## Abstract

The present invention discloses a human hepatocellular carcinoma (HCC)-related gene, *LAPTM4B*, and its encoded products. This human HCC-related gene provided by the present invention comprises one of the following nucleotide sequences: (1) SEQ ID No: 1 in the sequence listings, 2) polynucleotides that encode the protein sequences of SEQ ID No: 2 or SEQ ID No: 3. 3) DNA sequences having above 90% homology to the DNA sequences defined by SEQ ID No: 1, SEQ ID No: 2 or SEQ ID No: 3 in the sequence listings, and capable of encoding proteins with the same functions. The proteins disclosed in the present invention may create novel early diagnostic targets for HCC, for example, exploiting the ELISA kits of the protein may provide early diagnosis of HCC with higher accuracy. Also the *LAPTM4B* gene and its encoded protein provide novel targets for HCC treatment, for example, to suppress the expression of *LAPTM4B* gene by RNAi, to exploit new anti-HCC drug which acts at *LAPTM4B* protein as a target. Thus the present invention enables the developments of novel anti-HCC approaches and new anti-HCC medicines. It would create a significant impact on human society.